

ABSTRACT OF THE DISCLOSURE

In an optical transmission system comprising an optical transmitter, including a frequency modulator for frequency-modulating frequency-multiplexed multi-channel signals and an optical modulator for intensity-modulating signal light with batched modulated signals obtained by the frequency modulator, and an optical receiver for optical/electrical-converting and frequency-demodulating the batched frequency-modulated signal, a delay equalizer is provided before the optical modulator in the optical transmitter. The delay equalizer is composed of an inductor and a capacitor, which constitute a resonance circuit with a resonance frequency determining a center frequency for delay equalization, and a variable resistor made variable in resistance. A Q value of the resonance circuit is controlled in accordance with a variation of the resistance of the variable resistor so that a quantity of delay equalization is made variable. With this circuit arrangement, the delay equalizer can equalize the delay deviation on a signal transmission line in the optical transmitter and further the delay deviation on a signal transmission line in the optical receiver, reducing the delay distortion stemming from the delay deviation of the entire system from the optical transmitter to the optical receiver.